

Amendments to the Specification:

Please replace the paragraph beginning on page 6, line 20, with the following rewritten paragraph:

Calling party telephone 121 and called party's home telephone 124 communicate with SSP 109 and SSP 123, respectively, over telephone lines 103 and 104. Telephone lines 103 and 104 are sometimes referred to as the "loop." Telephone lines 103 and 104 also may be referred to as a "calling line" and the terms will be used interchangeably. The term "communication" or "call" is used herein to include any data that may be exchanged between calling party telephone 121 and a called party's home telephone 124 over a telephone system, and is not limited to voice-based communication.

Please replace the paragraph beginning on page 10, line 17, with the following rewritten paragraph:

SCP 114 is in communication with SN 111 over data link 130. Communication over data link 130 typically is accomplished with an X.25 protocol or transmission control protocol/internet protocol (TCP/IP). In addition, SN 111 may be in communication with SSP 109 via Integrated Service Digital Network (ISDN) data links 140, well known to those skilled in the art. SN 111 is an interactive data system that may act as a switch to transfer calls, recognize telephone keypad inputs and voice commands, provide voice synthesis, and/or store messages, for example. SN 111 includes both voice and dual tone multi-frequency (DTMF) signal recognition devices and therefore can respond to both voice commands and telephone keypad commands. SN 111 further includes a voice synthesis

device and therefore can announce various prompts to telephone stations. Voice synthesis is typically provided by a voice messaging system, described below in more detail.

Please replace the paragraph beginning on page 12, line 17, with the following rewritten paragraph:

A telephone call may result in several statuses. A busy status occurs when called party's home telephone 124 is busy or "off-hook." For example, the called party may currently be using the telephone. A no-answer status occurs when there is no answer on called party's home telephone 124 after a predefined time. For example, the called party may not be near called party's home telephone 124 to answer. Alternatively, if the called party has forwarded their calls to a second telephone, a no-answer status will occur if there is no answer on the second telephone. An answer status occurs when the calling party answers the telephone, for example, by taking called party's home telephone 124 off-hook in response to the telephone ringing. An answer status also occurs when an answering machine or voice messaging system answers the telephone call. Therefore, the predefined time is ideally set to trigger a no-answer status before an answering machine or a voice messaging system answers the call. If however, an answering machine or voice messaging system answers a call, an answer status will be triggered.

Please replace the paragraph beginning on page 14, line 11, with the following rewritten paragraph:

Each wireless device 127 has one MSC assigned as its Home MSC 119. Each MSC typically has an associated HLR and a VLR, as shown in Figure 1. Each HLR keeps data on

each of the wireless devices assigned to Home MSC 119. Included in the data residing in HLR ~~449~~ 105 is the on/off status of each wireless device 127 assigned to HLR ~~449~~ 105.

When wireless device 127 tries to communicate through an MSC that is not the user's Home MSC 119, the user is considered a "visiting" wireless telephone and is tracked and monitored by Foreign MSC 118. Foreign MSC 118 reports information about the visiting wireless telephone to HLR 134 assigned to the wireless device 127, including the on/off status of the visiting wireless telephone. Communication between HLRs ~~245~~ 105 and 134 and VLRs ~~246 133 and 106~~ typically use IS-41 specification protocol, well known to those skilled in the art. Home MSC 119 is in communication with Foreign MSC 118 via a plurality of trunk circuits 136.

Please replace the paragraph beginning on page 16, line 11, with the following rewritten paragraph:

In step 204, the communication is directed based on the comparison conducted in step 203. By directing the communication based on a comparison of the location of the ~~received~~ receiving party to predetermined designators identified by the receiving party, the receiving party is more likely to receive the communication, as desired. This is to be distinguished from simply forwarding the communication to any of a number of predetermined designators, without knowing the present location of the ~~received~~ receiving party.

Please replace the paragraph beginning on page 17, line 1, with the following rewritten paragraph:

As shown in Figure 3, a system 300 includes many of the telecommunications network components described with reference to system 100 in Figure 1. In addition, system 300 includes a location detection system 301 in communication with SCP 114. It should be appreciated that the term location detection system and “position detection ~~device~~ entity” (PDE) may be used interchangeably. Also, as shown in Figure 3, system 300 includes a called party 302 in possession of a location-tracking device 304 capable of communicating location-based signals 303 to location detection system 301. It should be appreciated that location-tracking device 304 may be any commercially available device capable of signaling its location (and therefore the location of a called party in possession). Such signaling may include any technique capable of providing location information, including a global positioning system (GPS) device, and/or a radio frequency-based (rf) device, for example, but is not limited to such.

Please replace the paragraph beginning on page 18, line 16, with the following rewritten paragraph:

As shown in Figure 4A, in step 401, a called party subscribes to a forwarding service. As a result of the subscription to the forwarding service, a network administrator may establish at trigger 117 in SSP ~~402~~ 123 of called party's home telephone 124. As discussed with reference to Figure 1, trigger 117 may be set in any SSP related to the called party, for example, the called party's home telephone 124. It should be appreciated that trigger 117 may be set in any SSP within the telecommunications network capable of facilitating the forwarding service for the called party. For example, trigger 117 may be set in a SSP

associated with the called party's work telephone number, which may be a different SSP than called party's home telephone 124.

Please replace the paragraph beginning on page 19, line 4, with the following rewritten paragraph:

In step 403, a calling party 121 calls called party's home telephone 124 by dialing certain digits that identify the subscriber location of called party's home telephone 124. A signal associated with the calling party's telephone call travels through SSP 109 and is routed to SSP 123, where trigger 117 is encountered, in step 404. In response to trigger 117, in step 405, STP SSP 123 routes the call to STP 102, and STP 102 queries SCP 114 for call processing instructions. As a result of the query required by trigger 117, SCP 114 recognizes that it must determine the location of called party 302, or to any party associated with called party's home telephone 124 (*e.g.*, groups of people). In step 406, SCP 114 queries location detection system 301 for the location of the called party 302. Although step 406 describes SCP 114 querying location detection system 301, it should be appreciated that the location of called party 302 may be previously provided by location detection system 301 to SCP 114 and stored in database 116. Alternatively, the location of called party 302 may be stored in any data storage device within the telecommunications network to which SCP 114 has access and may retrieve the location of called party 302.

Please replace the paragraph beginning on page 20, line 18, with the following rewritten paragraph:

In step 409, it is determined whether called party 302 is within a predetermined range of one or more subscriber locations. The predetermined range may represent any preset distance from a subscriber location, for example, 500 feet. If it is determined that the called party is within a predetermined range of a particular subscriber location, SCP 114 directs the call received from calling party telephone 121 to one or more of the subscribed locations within the predetermined range, in step 410. If, on the other hand, the called party is not within a predetermined range of a subscriber location, in step ~~311~~ 411, the call from calling party telephone 121 may be directed to one or more default locations. The default locations may be any subscriber location (previously designated by the called party or otherwise), including one or more wireless devices, a voicemail system, and/or an email system, for example.

Please replace the paragraph beginning on page 21, line 8, with the following rewritten paragraph:

Although the discussion with reference to Figures 3 and 4, describes the process of locating called party 302 using a device located on the person of called party 302 to communicate with SCP 114 via location detection system 301, it should be appreciated that other techniques are contemplated by the invention. For example, the location of called party 302 may enter the telecommunications network, and so location-tracking device 304 associated with called party 302 may communicate with devices other than SCP 114. Also, various systems capable of identifying a location of called party 302 are contemplated by the invention. Figures 5 and 6 provide such alternatives.

Please replace the paragraph beginning on page 23, line 3, with the following rewritten paragraph:

Figure 6 is a block diagram of another technique for forwarding a communication based on the location of called party 202 302. As shown in Figure 6, called party 202 302 is in possession of location-tracking device 304 that is capable of transmitting a location signal 601 and/or 605 to receivers 603 and 602, respectively, located on a particular telephone. Therefore, the invention contemplates allowing called party 302 to communicate his/her location directly to the nearest telephone unit. Such communication may occur while the telephone is "on-hook" or "off-hook." It should be appreciated that receivers 602 and 603 may be integrated within the telephones or may be separate devices that are coupled to the telephones.

Please replace the paragraph beginning on page 23, line 18, with the following rewritten paragraph:

As previously described, when an incoming call (*e.g.*, from calling party telephone 121) enters SSP 123 it will encounter trigger 117. Trigger 117 will initiate SCP 114 to query database 116 to provide call processing instructions to STP 102 from SCP 114. Database 116 may have an entry indicating that all calls directed to ~~each~~ called party 302 should be directed and/or forwarded to call party's home telephone 124, for example.

Please replace the paragraph beginning on page 24, line 3, with the following rewritten paragraph:

On the other hand, if ~~each~~ called party 302 moves within a predetermined range of ~~each~~ called party's work telephone ~~601~~ 606, for example, a signal 605 will be received by receiver 602. Receiver 602 will provide SCP 114 with a signal via SSP 123 indicating that called party 302 is within a predetermined range of called party's work telephone 601. As a result, a telephone call directed by calling party telephone 121 to called party ~~202~~ 302 will encounter trigger 117 in ~~STP 102~~ SSP 123. SCP 114 will be queried by STP 102, because of trigger 117, for call processing instructions. SCP 114 may have an entry in its database 116 (or in another data store located accessible by the telecommunications network) identifying a location of called party 302 as being called party's work telephone ~~601~~ 606. As a result, SCP 114 will direct the call from calling party telephone 121 to called party's work telephone ~~601~~ 606 via SSP 604 and STP 102. It should be appreciated that the invention contemplates that called party 302 may communicate his/her location with any of a number of components within the telecommunications network including, a telephone, a location detection system 301, and/or a service node, for example. Therefore, it should be appreciated that the location of called party 302 may be identified to any one of a number of components typically found in a telecommunication system.

Please replace the paragraph beginning on page 24, line 19, with the following rewritten paragraph:

If ~~calling~~ called party 302 is not within a proximity of a ~~predefined~~ subscriber location, the communication may be forwarded to certain default locations. For example, the communication may be forward to an email server, a voice mail system, and a wireless telephone. Alternatively, the communication may be forwarded to another user based on the

DOCKET NO.: BELL-0110/01065
Application No.: 09/939,855
Office Action Dated: March 30, 2004

PATENT

location of the other user. For example, a user may desire all calls to be forwarded to his/her spouse, should the primary user be out of proximity of any ~~predefined~~ subscriber location.